

"GEN.N., SP.N." AFTER 1930: IS THE GENERIC
NAME AVAILABLE? Z.N.(S.) 2054

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In recent years, a number of publications have used the format "*X-us albus*, new genus, new species," "gen.n., sp.n.," or similar expression equivalent in meaning, at the head of a single combined description. In my opinion, this does not constitute a valid, legitimate publication of the generic name, and the generic name is unavailable in zoological nomenclature. The contrary opinion is held by some taxonomists. The present statement is intended to outline the problem and to ask the Commission for a clear and unambiguous declaration of principle.

2. For brevity in discussion, the International Rules of Zoological Nomenclature (1905, the "Règles" of the substantive French edition) are referred to as the "Rules", the "International Code of Zoological Nomenclature adopted by the XV International Congress of Zoology" (1961, 1964) as the "Code" (the few changes in the 1964 edition do not affect the present problem), the International Commission on Zoological Nomenclature as the "Commission", an International Congress of Zoology as "Congress", and the Bulletin of Zoological Nomenclature as "BZN".

3. In the Code, there are two aspects of the problem: (1) the availability of the names in that method of description, and (2) type-designation. This application is concerned only with the first of these problems. The second is answered in the Code, Art. 68 a.i: "The formula 'gen.n., sp.n.,' or its exact equivalent, applied *before* 1931 [*italics mine*] to only one of the new nominal species included in a newly established nominal genus, is to be interpreted as original designation if no other type species was designated". The implication is that after 1930 such a formula is not to be construed as original designation; however, the Code is admittedly remiss in not making a positive statement no matter how clear the implication may seem.

HISTORY OF THE PROBLEM

4. The Rules stated the basic condition for availability of a name in Article 25, the Law of Priority, as follows: "That this name [of a genus or species] was published and accompanied by an indication, or a definition, or a description". There was no mention of publication as "gen.n., sp.n.", nor of the type designation by that method.

5. Opinion 7 of the Commission, adopted between 1907 and 1910 and published by the Smithsonian Institution in July 1910 in "Opinions 1 to 25", concentrated on type designation and accepted the expression "n.g., n.sp." (or equivalent) as a valid form of original designation in the "publication of a new genus for which no other species is otherwise designated as genotype". This Opinion automatically accepted the generic name as available under the Rules.

6. Opinion 22 accepted "*Ceraticthys vigilax*, B. & G.," so published and described without mention that the names were new, as constituting a "new genus, new species." The Commission ruled that Baird and Girard had published "*Ceraticthys* as a monotypic genus, describing the genotype (*C. vigilax*)."

7. Opinion 43 of the Commission, published by the Smithsonian Institution in February 1912 in "Opinions 38 to 51", dealt with "The status of genera the type-species of which are cited without additional description". The genera in question (e.g., *Alloderma* Ashmead) were published in tabular keys, with type-species cited by name but not described. The Commission noted in its discussion that this method was essentially that adopted in many zoological papers: A new monotypic genus with a "single diagnosis to cover both the genus and the species". Then this trenchant statement: "In the opinion of the Commission this method of publication is only tolerated because it is more or less sanctioned by practice, but it is not to be recommended, and Mr. Crawford [the applicant in the case] is correct in the interpretation that the characters given cover both the genus and the species, and that nomenclatorially both names are available under the Code" ["Code" here means the Rules.]

8. In 1927, the 10th Congress (Budapest) adopted a significant amendment (new Section C) to Article 25 of the Rules, effective Jan. 1, 1931. The Commission's report was published in 1929 in the Proceedings of the Congress, Part I, pp. 139-156 (Article 25 discussed on pp. 148-150), but the text of the amendment had already been published in 1927 and 1928 in various scientific journals. This amendment provided that a generic or specific name published after Dec. 31, 1930 would have no status of availability "unless and until it is published either":

(1) With a summary of characters (seu diagnosis; seu definition; seu condensed description) which differentiate or distinguish the genus or the species from other genera or species;

(2) Or with a definite bibliographic reference to such summary of characters (seu diagnosis; seu definition; seu condensed description). And further;

(3) In the case of a generic name, with the definite unambiguous designation of the type species (seu genotype; seu autogenotype; seu orthotype)".

In its report, (Congress Proceedings, paragraph 105), the Commission clearly stated that after Dec. 31, 1930 "no name (1) based solely upon illustrations (figures), or (2) based solely upon bibliographic references to illustrations, or (3) based solely on the designation of a genotype, or (4) proposed in anatomical, embryological, histological, morphological, pathological, and physiological discussions, but without a summary of characters, is to be recognized *until* . . . [such a summary is published, and that author then becomes the author of the name]".

Further, in paragraph 107, the Commission revealed the fundamental philosophy behind the proposal: ". . . it is felt that the wording recommended will settle this controversy if authors will interpret it under the general principle of trying to render one's own work more intelligible to other authors".

9. Decisions of the Commission and of the Section on Nomenclature, confirmed by the 13th Congress, Paris, July 1948:

(a) In BZN 3: 80 (Mar. 14, 1950), in item 19 of Secretary Hemming's Memorandum to the Commission, referring to Opinion 43, he proposed that words should be inserted in a new code to make it clear that "a specific name published, prior to 1st January, 1931, jointly with a new generic name is to be treated as having been published with an 'indication', where the new genus and the new species are described jointly, no separate description being given for either". Secretary Hemming closed the paragraph with these significant words: "It is necessary to limit this amendment to names published before 1st January, 1931, for names published in the foregoing manner would not satisfy the requirements of proviso (c) added to Article 25 with effect from that date". The proposed rule to give effect to Opinion 43 was adopted (BZN 4 : 149-150, May 25, 1950).

(b) In BZN 3 : 104-105, Commission President Karl Jordan noted that it would be desirable to clarify the status of a new nominal species published with a generic name that did not satisfy the requirements of Article 25(c). The Commission adopted a provision making clear that the status of a trivial name is not adversely affected by the fact that the generic name with which it was first published is unavailable because it does not satisfy the requirements of Article 25(c) (BZN 4 : 227-228, May 25, 1950).

10. Further decisions toward a new code were passed at a Colloquium on Nomenclature preceding the 14th Congress, Copenhagen, August 1953, and were confirmed by the Section and the Congress. These were reported in a volume entitled "Copenhagen Decisions on Zoological Nomenclature", edited by Secretary Hemming and published late in 1953. The only relevant provision is that in paragraph 109 (p. 61), in which Article 25c(1) is modified to state that the author "attempts to indicate differentiating characters for the genus, species or subspecies concerned", thus avoiding the implication of subjective interpretation as to whether the characters stated really did differentiate the taxon.

11. The next step was the preparation of a Draft Code by Professor J. C. Bradley, bringing together decisions by Congresses and the Opinions of the Commission. This lengthy "Bradley Draft" was published in BZN, vol. 14 (1957-58), in time for consideration at a second Colloquium on Nomenclature preceding the 15th Congress, London, August 1958. In this Draft, Article 6 dealt with the Rule of Availability: For a name published after 1930, "it must be either (1) accompanied by a statement intended to give differentiating characters of its taxon, . . .". The other provisions of old Article 25c, noted in my paragraph 8, are not repeated here as they are irrelevant to the present problem.

12. The Code (1961) represented the results of the London and earlier decisions, edited by an Editorial Committee and approved by the Commission. Articles 10-20 deal with Availability. Article 12 requires that before 1931 a name must be "accompanied by a description, definition, or indication". Article 16 defines indications, and one of the kinds (16. a.vi) is "a single combined description of a new nominal genus and a new nominal species, which provides an indication for each name" (the "gen.n., sp.n." formula). However, Article 13 provides that "a name published after 1930 must be either (i) accom-

panied by a statement that purports to give characters differentiating the taxon; or . . ." (here follows the conditions, irrelevant to the present problem, of bibliographic reference and replacement name). Further (Article 13b), a genus-group name first published after 1930 must be accompanied by "the definite fixation of a type-species". Article 17(3) protects the availability of a species-group name if "the genus-group name with which it is first combined is invalid or unavailable".

13. A number of propositions for amendment of the Code were before the Commission and the Section on Nomenclature at the 17th Congress, Monaco, September 1972. In BZN 29 : 83 (Aug. 23, 1972), as one step in meeting the criticism that the Code too frequently left the reverse of some provisions to inference, I proposed a new Section (c) in Article 13, and with slight change in wording it was adopted (BZN 29 : 188, Dec. 29, 1972): "(c) Exclusions.—After 1930, a name proposed only by 'indication' under any of the methods listed in Article 16(a), clauses (ii), (iv), (v), (vi), (vii), and (viii) is not available". However, we failed to note the special provision in Article 17(3) which protected the species-group name in the "gen.n., sp.n." cases of single combined description, and this provision will have to be taken account of in a new edition of the Code. The important point is that this provision makes it clear that after 1930, a generic name proposed in the "gen.n., sp.n." formula is not available from that point. Obviously, my proposal expressed my own belief in the meaning of the Code on that problem, but I did point out that considerable differences of opinion existed, and I stated that a separate paper would be prepared.

EXAMPLES

14. Many examples have been seen, of varying degrees between clearly acceptable and clearly, in my view at least, unacceptable names. A few are cited here, not in criticism of any individuals but in order to have a series of concrete examples before us.

(a) Schmitz, 1931 (Dec. 28), "Neue termitophile Dipteren von Buitenzorg, Java, "(*Natuurhist. Maanblad* 20 : 176): "*Dicranopteron philotermes* n.g. n.sp. ♀. (Fig. 2). Stellt man diese Gattung zu den Metopininae, wozu sie wahrscheinlich gehört, so gelangt man mit meinem Gattungsschlüssel (Revision d. Phoriden, 1929, S. 80 ff) zu *Pheidolomyia*, *Rhynchomicropteron* und *Gymnophora* subg. *Capraephora*. Sie ist aber mit keiner derselben identisch. Die gewölbte Stirn tritt vorn zwischen die relativ kleinen Fühlergruben. Senkborsten fehlen. Hauptaugen verkleinert, Ocellen vorhanden. . . ." [11 lines of more characters]. Then, toward the end of the long paragraph, and continuous with it, without indentation: "Typus: *D.philotermes* n. sp. bei *Macrotermes gilvus*, Java. Körperlänge über 2 1/2 mm, mit brauner Stirn, braunem Thorax, grauem Hinterleib und gelblichen Beinen. Die etwas lederartigen Flügel verkleinert, stark gelbbraun getrübt".

Here, although the expression "n.g. n.sp." is used, there is nevertheless a clear separation between a statement of generic characters, including the place of the genus in a published generic key, and a brief specific description. There is also the definite and unambiguous designation of a type-species.

(b) Curran, 1934, "*Heliaeae mirabilis*, new genus and species" (*Bull. Amer. Mus. Nat. Hist.* 66 : 517). The description is a characteristic species description, like the many others in the long article in which it appears, stating the sex, details of color, pollinosity, length, designation of holotype, etc. What is headed "new genus and species" (=gen.n., sp.n.) is actually the species description of *H. mirabilis*; "*Heliaeae*, n.gen." appears on p. 492 in the key to genera and is properly diagnosed there. The situation is comparable to that of Schmitz (1931), although the format is different.

(c) Curran, 1934, "The families and genera of North American Diptera"; Eighteen new genera, each based on one new species, are described on pp. 464-471, at the end of the key to the genera of Tachinidae. The genera had already appeared in the generic key, pp. 419-463, and they are thus published with a diagnosis or definition. Each description consists of a single paragraph, headed by the name of the new genus, and ending with the name of the species, designated as type-species of the genus but apparently without species description. For example, on p. 465:

"Chaetonalia, new genus

"Male.—Head almost twice as high as long; cheeks very narrow; face . . . [11-line description]. Length, 5.5 mm. Genotype:—*C. lateralis*, n.sp. (Panama)".

The genus is separately diagnosed in the key, of course, but this description by itself is the "gen.n., sp.n." formula: a single combined description for genus and species. The description, including non-generic details such as the sex of the type, the color of the pollinosity, and the length, is obviously a specific rather than a generic description, but in a reversed format the species name closes rather than begins the paragraph. Realistically and pragmatically, it seems best to regard this as the species description that accompanies the genus, which had already been diagnosed in the generic key.

(d) Heller and Linnavuori, 1968 (*Stuttgarter Beitr. zur Naturk.* 186 : 6), described a new species of leafhopper, family Cicadellidae, as "*Okaundua* (Lv. in litt.) *crassicauda* n.sp." However, the formal description of *Okaundua* new genus, with *O. consita* new species as type-species, was not published by Linnavuori until a year later (1969, *Bull. Inst. franç. d'Afrique Noire* 32, Ser A(4): 1177). The first publication (1968) was not labeled "gen.n., sp.n.", and the later publication shows that it was not so intended, but both names in 1968 depend in fact on the same description and the situation is essentially that of "gen.n., sp.n.", as interpreted in Opinion 22. The specific name *crassicauda* dates from 1968, but *Okaundua* is available only from 1969.

(e) Bagnall, 1949 (*Ann. Mag. nat. Hist.* (12) 2 : 94) provides the reverse of the preceding example: The genus is described but not the species. In the Collembola, the heading "Genus HOLOTOMODES, nov." is followed by a 7-line generic diagnosis, including comparison with other genera. Then this paragraph: "Genotype: *Holotomodes hibernica* Bagnall, sp. ined., Ireland. Two other new species are in my collection, awaiting description—both from the British Isles". This case might be interpreted in two different ways. Both names depend on the same description, hence the situation is essentially that of

"gen.n., sp.n." and corresponds exactly to that outlined in Opinion 43. Under the Code, the specific name is available, protected under Article 17(3), but the generic name is unavailable, in my view. Under another interpretation, the description is clearly a *generic* diagnosis, based on three species, one named but undescribed (the author himself tells us that!), the other two unnamed. The genus is thus based on a *nomen nudum*, it violates the rule calling for definite fixation of a type-species (Art. 13b), and the generic name is accordingly unavailable.

(f) Osmólska, Roniewicz, and Barsbold, 1972, "A new dinosaur, *Gallimimus bullatus* n.gen., n.sp. (Ornithomimidae) from the Upper Cretaceous of Mongolia" (*Palaeontologia Polonica* 27 : 103-143). On page 105, after introductory remarks, is the following:

"Genus *Gallimimus* nov.

"Type species: *Gallimimus bullatus* n.sp.

"Diagnosis.—The genus is monotypic; the generic characters are those of the type species".

The derivation of the name and the stratigraphic and geographic ranges are given, but these are irrelevant for our problem. Then follows: "*Gallimimus bullatus* n.sp.", described and figured in great detail on pp. 106-134.

Here the authors appear, technically, to have satisfied the strict letter of the law: There is a definite statement under generic "diagnosis" in addition to a detailed description under the specific name. This cleverly appears to avoid violation of the Code, but in actual fact it is still a case where both genus and species depend on the same combined description, in other words essentially the "gen.n., sp.n." situation. Certainly it is patently exaggerated and unrealistic to claim that all 29 pages of details in the species description are also generic characters.

In this case there is a peculiar twist that makes it possible to argue that *Gallimimus* is available. On page 134 are two paragraphs of "Discussion", and in these *Gallimimus* is compared with other genera in its family. For example, "it [*Gallimimus*] is different from *Struthiomimus* in three of the characteristics considered by Russell (1972) to be of generic value: the length of the presacral vertebral column, which is equal to the length of the hind limb (the pedal digits excluding) in *Gallimimus* n.gen. while it is more than that in *Struthiomimus*; . . . [etc.]" The statements although buried in the discussion far back in the paper, do appear to diagnose the genus *Gallimimus*, by notation of certain characters considered as generic by another author on another genus of the family. Other comparisons are also made on pp. 134-138 in the general discussion of the skull, mandible, and postcranial skeleton. But one should not have to search through over three dozen pages to see whether truly generic characters are cited or generic comparisons made.

DISCUSSION

15. All of the generic names in the foregoing examples, if they had been proposed before 1931, would have been available in zoological nomenclature under Articles 12 and 16a (vi) of the Code. The question is whether or not a

generic name proposed after 1930 by the "gen.n., sp.n." formula is available.

16. In my opinion, a generic name published in a "gen.n., sp.n." situation after 1930 is and should be unavailable. The characters in the descriptions, as seen in the examples cited, may range all the way from all generic to all specific. Characters defining and differentiating each taxon, if indeed both do occur somewhere in a description, are jumbled together and one cannot say that each taxon is or purports to be defined and differentiated. Availability in such cases is by "indication" (Art. 16 a.vi), which applies before 1931 (Art. 12) but not after 1930 (Art. 13a).

17. For names published after 1930, the Code requires that a taxonomist assist his colleagues and his science by stating the characters by which he has recognized the genus as new, and by "definite fixation of a type-species". Publication as "gen.n., sp.n." does neither. The taxonomist who has studied and recognized the genus as new is in the best position to state the basis upon which it is recognized as new! He is the authority; he should help others.

18. Accordingly, the Commission is requested to issue a Declaration of principle confirming beyond any argument or difference of interpretation that after 1930, proposal of a generic name solely in a "gen.n., sp.n." combination without separate diagnosis of the genus does not thereby make the name available. The exact wording and its position in the Code may be left to an Editorial Committee, but I suggest that either a rewording of Article 13a.i or addition of a Subsection (iv) to Article 13a would be appropriate. First a decision in principle is needed.